UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SM

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/300,686	04/27/99	HIROTA S	10178/25

QM02/0731

KENYON & KENYON
ONE BROADWAY
NEW YORK NY 10004

EXAMINER	
DAHBOUR, F	
ART UNIT	**PAPER NUMBER**
3742	4

DATE MAILED: 07/31/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/300,686	Applicant(s) Hirota et al
	Examiner Fadi H. Dahbour	Group Art Unit 3742

☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-23* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1, 3, and 20-22* is/are rejected.

☒ Claim(s) *2, 4-19, and 23* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informality:

In line 9 of the claim, the term "portion" should read "port". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "the third position" is recited in line 9 of claim 20, and is also recited in line 6 of claim 22. There is insufficient antecedent basis for this limitation in each of the claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bloch.

Bloch discloses an exhaust emission control system of an internal combustion engine (Fig.1), comprising, exhaust gas purifying means provided in an exhaust passageway of the internal combustion engine (14, 15), flow direction switching means including four ports and provided at an exhaust passageway disposed more upstream than the exhaust gas purifying means (4), a first exhaust passageway connected to the internal combustion engine and further to a first port of the flow direction switching means (see left of 4), a second exhaust passageway communicating with the atmospheric air and further to a second port of the flow direction switching means (see right of 4), a third exhaust passageway connected to one side of the exhaust gas purifying means and further to a third port of the flow direction switching means (see top of 4), a fourth exhaust passageway connected to the other side of the exhaust gas purifying means and further to a fourth port of the flow direction switching means (see bottom of 4), wherein the flow direction switching means can be switched over to a first position for permitting the exhaust gas to flow in a direction through the exhaust gas purifying means by connecting the first port to the third port and connecting the second port to the fourth port (Fig.1), and to a second position for permitting the exhaust gas to flow in a direction opposite to the first direction through the exhaust gas purifying means by connecting the first port to the fourth port and connecting the second port to the third port (see "rotated" and "direction...reversed" in lines 56-57 of col.9), and

also, the exhaust gas purifying means is an NOx storage-reduction catalyst for absorbing NOx when an air/fuel ratio of the inflow exhaust gas is lean, and desorbing NOx absorbed thereto when a concentration of oxygen in the inflow exhaust gas decreases (14, 15 of Fig.1, also see "oxides of nitrogen" in lines 40-41 of col.1, also see "catalyst" in lines 60-61 of col.1).

Allowable Subject Matter

6. Claims 2, 4-19, 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 20-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hayashi et al, Minami et al, Sanbayashi et al, Levendis, Baddour, Takeshima et al ('830), Takeshima et al ('809), Takeshima et al ('406), Kojima et al and Danno et al, are cited to show exhaust emission control systems with valve switching means.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fadi H. Dahbour whose telephone number is (703) 306-5479.

Teresa Walberg
Supervisory Patent Examiner
Group 3700

FHD

July 26, 2000